



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/541,241

02/28/2006

Jaemoon Lee

126587-0019

3835

22429

7590

07/29/2008

LOWE HAUPTMAN HAM & BERNER, LLP  
1700 DIAGONAL ROAD  
SUITE 300  
ALEXANDRIA, VA 22314

EXAMINER

ZEWARI, SAYED T

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

07/29/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/541,241	<b>Applicant(s)</b> LEE ET AL.	
	<b>Examiner</b> SAYED T. ZEWARI	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Amendment*

1. Applicant's arguments filed on 12/27/2007 have been fully considered but they are not persuasive.
2. Applicant argues that ***"Turner does not disclose at least a 1xEV-DO access network controller for controlling a high-rate data transmission service of the 1xEV-DO access network transceiver subsystem..."*** This argument is not persuasive. Applicant discloses a hybrid system with a 1xEV-DO controller.
3. Applicant argues that ***"...Turner does not disclose a 1xEV-DO access network controller..."*** and that ***"Turner discloses a Wireless Communication Device (WCD) operating on IS-856 and IS-2000 network"*** This argument is not persuasive. Turner disclose hybrid network of IS-856 and IS-2000. The IS-2000 is another name for 1xEV-DO.
4. Applicant argues that ***"Turner is silent about the 1xEV-DO access network controller that communicates with the mobile switching center of 1X system"*** This argument is not persuasive. The network controller inherently communicates with the mobile switching center.
5. Applicant argues that ***"...Turner discloses different types of communication networks, such as IS-2000 and IS-856"*** This argument is not persuasive. The IS-2000 is another name for 1xEV-DO.

6. Therefore, the references applied disclose all the limitations of the claims of the applicant.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-3, 5, 7, 9, and 11-19, and 22 rejected under 35 U.S.C. 102(e) as being anticipated by Turner (US 2003/0,152,049).

With respect to claim 1, Turner discloses a system for recognizing a call switch-over to a CDMA 2000 1X system (1X system) when a call drop of a hybrid access terminal with respect to a CDMA 2000 1xEV-DO system (1xEV-DO system) occurs **(See Turner's section [0108]-[0124])**, the system comprising: the hybrid access terminal operated in a 1X mode in relation to a 1X system for receiving a voice signal transmission service or a low-rate data transmission service from the 1X system **(See Turner's section [0006], [0009], [0010]-[0012])** and in a 1xEV-DO mode in relation to the 1xEV-DO system for receiving a high-rate data transmission service from the 1xEV-DO system **(See Turner's section [0006], [0009], [0010]-[0012])**, the hybrid access terminal in traffic with the 1xEV-DO system being switched into the 1X mode to perform

a call connection with the 1X system and to transmit/receive voice and/or data to/from the 1X system when voice signals or low-rate data are received from the 1X system **(See Turner's section [0006], [0009], [0010]-[0012], [00013]);** a 1X transceiver for transmitting/receiving voice signals and/or data to/from the hybrid access terminal **(See Turner's section [0006], [0009], [0010]-[0012], [0013], [0041], [0042], figure 1, [0043], figure 2, [0046]);** a 1X controller for controlling a transmission service of the 1X transceiver **(See Turner's section [0006], [0009], [0010]-[0012], [0013], [0041], [0042], figure 1, [0043], figure 2, [0046]);** an inherent mobile switching center for providing a communication access path of the 1X system with respect to a communication call transmitted from the hybrid access terminal **(See Turner's section figure 1(108), [0043] where mobile switching center are an inherent part of the network),** inherently storing information of the hybrid access terminal registered in the mobile switching center in a home location register (HLR), and storing information of hybrid access terminals located in a region of the mobile switching center **(See Turner's section figure 1(108), [0043] where storing related information are inherently done within the network);** a 1xEV-DO access network transceiver subsystem for transmitting/receiving high-rate data to/from the hybrid access terminal **(See Turner's section [0006], [0009], [0010]-[0012], [00013]);** and a 1xEV-DO access network controller for controlling a high-rate data transmission service of the 1xEV-DO access network transceiver subsystem **(See Turner's section [0006], [0009], [0010]-[0012], [0013], [0041], [0042], figure 1, [0043], figure 2, [0046]),** transmitting a message inquiring whether or not voice signals or low-rate data are received in the

hybrid access terminal to the mobile switching center when a signal having a level below a predetermined level is received from the hybrid access terminal if a call drop occurs between the 1xEV-DO system and the hybrid access terminal in traffic with the 1xEV-DO system **(See Turner's section [054]-[0071])**, and recognizing that the hybrid access terminal is switched into the 1X mode when a message capable of checking whether or not the voice signals or low-rate data are received in the hybrid access terminal is received from the mobile switching center **(See Turner's section [0054]-[0071])**.

With respect to claim 12, Turner discloses a method for recognizing a call switch-over from a CDMA 2000 1xEV-DO system (1xEV-DO system) to a CDMA 2000 1X system (1X system) when a hybrid access terminal is switched from a 1xEV-DO mode to a 1X mode **(See Turner's section [0108]-[0124])**, the method comprising the steps of: (a) sequentially initializing the 1X mode and the 1xEV-DO mode of the hybrid access terminal such that the hybrid access terminal stays in an idle state **(See Turner's section [0054]-[0065])**; (b) performing dual monitoring with respect to the 1X mode and the 1xEV-DO mode by using the hybrid access terminal in a state that the hybrid access terminal stays in the idle state **(See Turner's section [0054]-[0065])**; (c) allowing the hybrid access terminal to make a call-connection with the 1xEV-DO system in the 1xEV-DO mode and enter a traffic state, thereby enabling the hybrid access terminal to transmit/receive high-rate data **(See Turner's section [0006], [0009], [0010]-[0012])**; (d) occurring a call drop between the hybrid access terminal and the 1xEV-DO system **(See Turner's section [0108]-[0124])**; (e) making a call-

connection with the 1X system when the hybrid access terminal is switched from the 1xEV-DO mode to the 1X mode **(See Turner's section [0006], [0009], [0010]-[0012]);**

(f) transmitting a message inquiring whether or not voice signals or low-rate data are received in the hybrid access terminal from the 1xEV-DO system to a mobile switching center **(See Turner's section [0006], [0009], [0010]-[0012]);** and (g) receiving a message capable of checking whether or not the voice signals or low-rate data are received in the hybrid access terminal from the mobile switching center to the 1xEV-DO system, and recognizing in the 1xEV-DO system that the hybrid access terminal has been switched from the 1xEV-DO mode to the 1X mode wherein the mobile switching center provides a communication access path of the 1X system with respect to a communication call transmitted from the hybrid access terminal **(See Turner's section [0006], [0009], [0010]-[0012]).**

With respect to claim 2, Turner discloses a method wherein the hybrid access terminal receiving data in traffic with the 1xEV-DO system is periodically switched into the 1X mode in a predetermined period of time so as to check whether or not voice signals are received through the 1X system and returns to the 1xEV-DO mode **(See Turner's section [0070]-[0075], [0088], [0150], [0092], [00118], [0019]-[0123]).**

With respect to claim 3, Turner discloses a method wherein the hybrid access terminal is set to the 1X mode in an idle state thereof in order to make communication with the 1X system and is periodically switched into the 1XEV-DO mode in a predetermined period of time so as to check whether or not data are received through

the 1XEV-DO system and returns to the 1X mode (**See Turner's section [0070]-[0075], [0088], [0150], [0092], [00118], [0019]-[0123], [0150]).**

With respect to claim 5, Turner discloses a method wherein the hybrid access terminal is switched from the 1XEV-DO mode into the 1X mode by tracking frequency of the 1X system using a searcher module under the control of a mobile station modem (MSM) chip (**See Turner's section [0070]-[0075], [0088], [0150], [0092], [00118], [0019]-[0123], [0150]).**

With respect to claim 7, Turner discloses a method wherein a hard handoff is carried out in case of the forward link, which transmits data from the 1XEV-DO system to the hybrid access terminal, by transmitting data with maximum power without performing power control, and a soft handoff is carried out in case of the reverse link while performing the power control with respect to each hybrid access terminal (**See Turner's section [0070]-[0075], [0088], [0150], [0092], [00118], [0019]-[0123], [0150]).**

With respect to claim 9, Turner discloses a method wherein the pilot channel is used as a reference for coherent detection of a wireless base station having the 1XEV-DO system by means of the hybrid access terminal (**See Turner's section [0070]-[0075], [0088], [0150], [0092], [00118], [0019]-[0123], [0150], [0045], [0054]).**

With respect to claim 11, Turner discloses a method wherein the 1XEV-DO access network controller transmitting/receiving the high-rate data to/from the hybrid access terminal calculates a predetermined time when a call drop of the hybrid access



terminal occurs, and determines whether or not a signal having a level below a predetermined level is received from the hybrid access terminal when the predetermined time lapses (**See Turner's section [0070]-[0075], [0088], [0150], [0092], [00118], [0019]-[0123], [0150]).**

With respect to claim 13, Turner discloses a method wherein, in step (a), the hybrid access terminal initializes the 1XEV-DO mode by using system parameters obtained when initializing the 1X mode (**See Turner's section [0013]-[0015], [0054], [0067], [0085], [0093], [0101], [0118], [0124], [0130], [0158]).**

With respect to claim 14, Turner discloses a method wherein, in step (c), the hybrid access terminal receiving data in traffic with the 1XEV-DO system is periodically switched into the 1X mode in a predetermined period of time so as to check whether or not voice signals or low-rate data are received through the 1X system and returns to the 1XEV-DO mode (**See Turner's section [0070]-[0075], [0088], [0150], [0092], [00118], [0019]-[0123]).**

With respect to claim 15, Turner discloses a method wherein, in step (e), the call switch-over from the 1XEV-DO mode into the 1X mode is performed by tracking frequency of the 1X system using a searcher module under the control of a mobile station modem (MSM) chip accommodated in the hybrid access terminal (**See Turner's section [0070]-[0075], [0088], [0150], [0092], [00118], [0019]-[0123], [0150]).**

With respect to claim 17, Turner discloses a method wherein, in step (c), the call-connection is performed after a connection and a session is set between the hybrid

access terminal and the 1XEV-DO system (**See Turner's section [0006], [0009], [0010]-[0012]).**

With respect to claim 18, Turner discloses a method wherein, in step (a), the hybrid access terminal is set to the 1X mode in an idle state thereof in order to make communication with the 1X system and is periodically switched into the 1XEV-DO mode in a predetermined period of time so as to check whether or not high-rate data are received through the 1XEV-DO system, in the 1X mode, and returns to the 1X mode (**See Turner's section [0070]-[0075], [0088], [0150], [0092], [00118], [0019]-[0123], [0150]).**

With respect to claim 19, the above discloses all its limitations.

With respect to claim 22, Turner discloses a method wherein the pilot channel is used as a reference for coherent detection of a wireless base station having the 1XEV-DO system by means of the hybrid access terminal (**See Turner's section [0070]-[0075], [0088], [0150], [0092], [00118], [0019]-[0123], [0150], [0045], [0054]).**

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 4, 6, 8, 10, 16, 20, 21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Turner (US 2003/0,152,049) in view of well-known prior art (MPEP 2144.03).

With respect to claim 4 and 16, Turner discloses a method wherein the 1XEV-DO access network controller transmits a message inquiring whether or not voice signals are received in the hybrid access terminal to the mobile switching center. Turner does not disclose the use of MIN and ESN information regarding the hybrid access terminal. However, an official notice is taken that the concept and use of MIN and ESN in communication networks are well known and expected in the art. Therefore, it would be obvious to one of ordinary skill in the art to use the MIN and ESN in the hybrid network.

With respect to claim 6 and 20, Turner discloses an inherent method wherein a method is utilized in a case of a forward link transmitting data from the 1XEV-DO system to the hybrid access terminal, and another method is utilized in a case of a reverse link transmitting data from the hybrid access terminal to the 1XEV-DO system. Turner does not disclose the use of TDMA and CDMA. However, an official notice is taken that the concept and use of TDMA and CDMA in communication networks are well known and expected in the art. Therefore, it would be obvious to one of ordinary skill in the art to use TDMA and CDMA in a hybrid network.

With respect to claim 8 and 21, Turner discloses a system and method for using hybrid access terminal. Turner does not specifically disclose use of pilot channel, MAC channel, Forward and Reverse link, Control Channel, and traffic channel. However, an official notice is taken that the concept and use of pilot channel, control & traffic

channel, Forward and Reverse link, and MAC channel in communication networks are well known and expected in the art. Therefore, it would be obvious to one of ordinary skill in the art to use the above in a hybrid network.

With respect to claim 10 and 23, Turner discloses a system and method for the hybrid access terminal. Turner does not specifically disclose the hybrid access terminal receives a least one pilot signal through pilot channel. However, an official notice is taken that the concept and use of pilot channel and pilot signal are well known and expected in the art. Therefore, it would be obvious to one of ordinary skill in the art to use pilot signal pilot channel in a hybrid network.

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

12. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAYED T. ZEWARDI whose telephone number is (571)272-6851. The examiner can normally be reached on 8:30-4:30.

14. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester G. Kincaid can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sayed T Zewari/  
Examiner, Art Unit 2617

June 26, 2008

/Nick Corsaro/  
Supervisory Patent Examiner, Art Unit 2617